1 1/4" WOOD SPINDLE SHAPER
40-350

SAFETY RULES

FEATURES

Heavily ribbed, solid cast iron table with a smooth ground surface finish.
Four(4) spindle speeds with reverse.
Independently adjustable left and right industrial duty fences with precision fine-tune adjustment dials.
Deluxe precision T-slot miter gauge for better workpiece control.
5HP industrial motor protected against dust by a totally enclosed cabinet.
Magnetic switch with thermal overload protection.
Quick release belt tensioning system for quick and easy speed changes.
Built-in caster system for instant mobility within the shop.
Large cutter guard with window, spring hold down and built-in 4" dust outlet.
Convenient, extra large adjustment handles.

SPECIFICATIONS

	MODEL 40-350
TABLE SIZE	30" X 40" (762 X 1016 mm)
TABLE HEIGHT	36"
SPINDLE OPENING DIAMETER	7" , 3 1/2", 3" , 2"
SPINDLE	1-1 /4" (32mm)
SPINDLE CAPACITY UNDER NUT	5" (127mm)
SPINDLE TRAVEL	3" (76.2mm)
SPINDLE SPEED	4000,6000,8000,10000RPM
FENCE SIZE (ALUMINUM)	5"X16 1/2" (127 X 419 mm)
MOTOR M1	5 HP, 220V, 1 PH 60HZ.25A
WEIGHT	748 IBS (340 Kg)

READ CAREFULLY BEFORE OPERATING THE MACHINE

1. Learn the machine's applications and limitations, as well as the specific potential hazards particular to this machine. Follow available safety instructions and safety rules carefully.

2. Keep working area clean and be sure adequate lighting is available. - .

3. Do not wear loose clothing, gloves, bracelets, necklaces, or ornaments. Wear face, eye, ear, respiratory and body protection devices, as indicated for the operation or environment.

4. Keep hands well away from cutters and all moving parts. Do not clear chips and sawdust away with hands. Use a brush.

5. Make sure the cutter is moving at operation speed before cutting.

6. Do not push the cutters to hard. The cutters will perform better and be safer working at the rate for which it was designed.

7. Whenever possible use a dust collector with shaving hood to minimize health hazards.

8. Never leave the machine with the power on.

9. Keep children away. Make sure that visitors are kept at a safe distance from the work area.

10. Use recommended speed cutters, accessory, and work-piece material.

11. Never stand on tool. Serious injury could occur if the tool is tipped or if the cutting tool is unintentionally contacted.

12. Be sure the cutters are securely locked in the machine.

13. Use suitable support if stock does not have a flat surface.

14. Do not force the machine. It will do the job better and be safer at a rate for which it was designed.

15. Keep guards in place and in working order. If a guard must be removed for maintenance or cleaning make sure it is properly attached before using the tool again.

16. Be sure that key and adjusting wrenches have been removed before turning power on.

17. Use only accessories designed for the machine.

18. Make sure tool is properly grounded. If tool is equipped with three-prong plug, it should be plugged into a three-pole electrical receptacle. Never remove the third prong.

19. Always disconnect tool before servicing and when changing accessories such as arbors or cutters.

20. Make sure that switch is in "OFF" position before plugging in cord.

21. Hold material firmly against the table.

22. Use ONLY recommended accessories, Use of accessories NOT recommended by General International may result in a risk of injury.

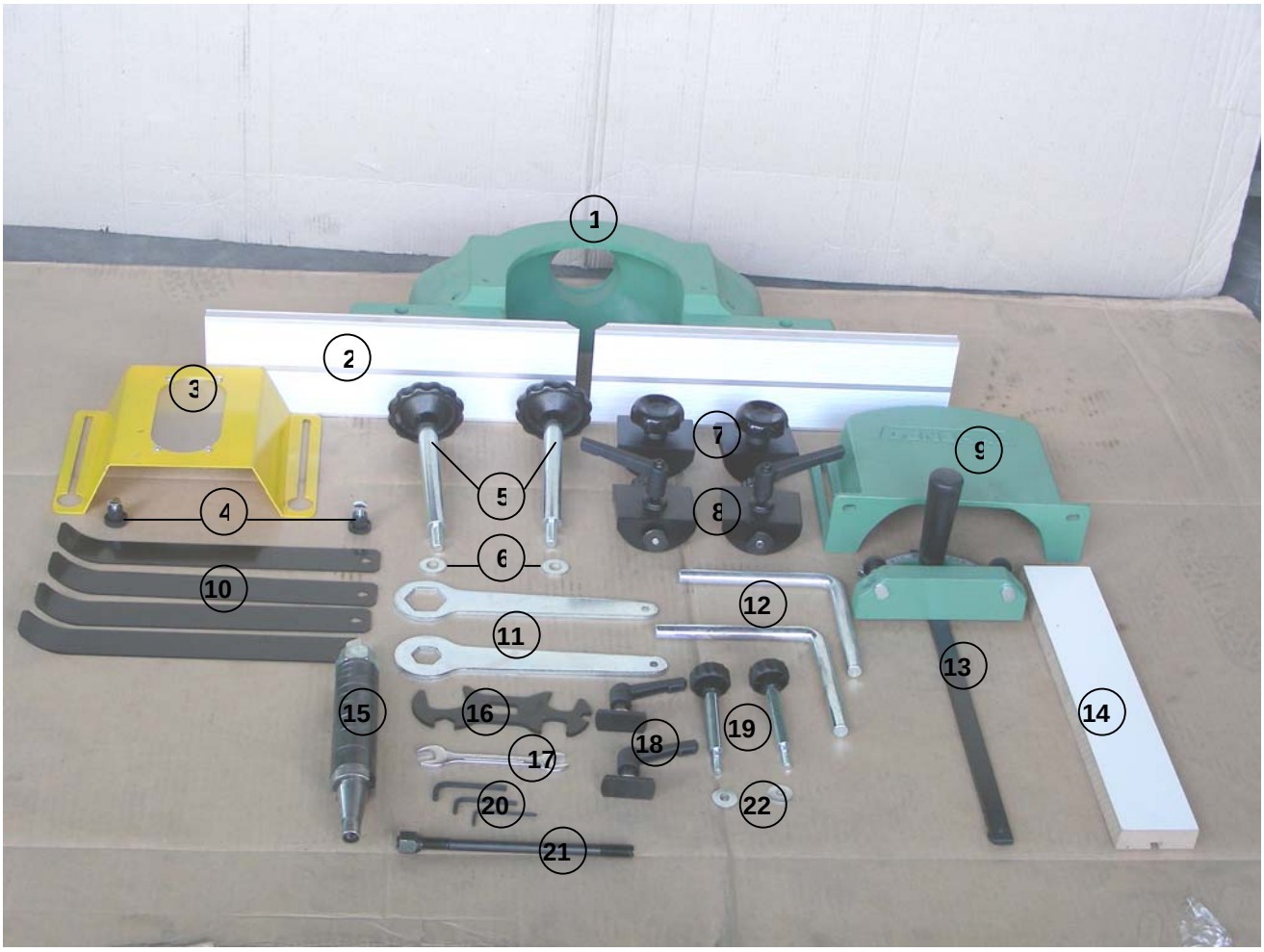
23. Do not use this wood shaper for other than it's intended use. If used for other purposes, General International disclaims any real or implied warranty and holds itself harmless for any injury, which may result from that use.

GENERAL ® INTERNATIONAL guarantee

All component parts of GENERAL INTERNATIONAL machinery are carefully inspected during all production stages and each machine is thoroughly Inspected upon completion of assembly. Because of quality, GENERAL INTERNATIONAL agrees to

within a period of 24 months from date of purchase.In order to obtain warrantee, all defective parts must be returned prepaid to GENERAL INTERNATIONAL MFG. Co Ltd. Repairs made without our written authorization voids all guarantees.

PARTS IDENTIFICATION



1. GUARD
2. FENCE
3. SAFETY GUARD
4. KNOB
5. SCREW KNOB
6. WASHER
7. RETAINER (L)
8. RETAINER (S)
9. PLATE GUARD
10. TENSION
11. WRENCH
12. BAR
13. MITER GAUGE
14. MITER GAUGE FENCE
15. SPINDLE
16. WRENCH
17. WRENCH
18. ADJUSTMENT HANDLE
19. KNOB
20. WRENCH
21. DRAWER BAR
22. WASHER

1-1/4" SPINDLE SHAPER **40-350**

GENERAL® INTERNATIONAL **spindle shapers 40-350 are carefully tested and inspected before shipment and if properly used will give perfect results, However, a reasonable amount of care and attention is necessary to ensure perfect performance and accurate work. It is imperative that you take a few moments to familiarize yourself with these instructions, as they will no doubt save you a lot of time and trouble.**

UNPACKING AND CLEANUP

To ensure maximum performance from your GENERAL® INTERNATIONAL spindle shaper 40-350, clean it properly; and install it accurately before use. As soon as you receive the shaper, we recommend you follow these procedures:

1. **Finish removing the contents of the shipping wooden case and compare with the contents list.**
2. **Report damage, if any to your local distributor.**
3. **Clean all rust protected surfaces with a mild solvent or kerosene. Do not use lacquer thinner; paint thinner, or gasoline. These will damage painted surfaces.**
4. **To prevent rust, apply a light coating of paste wax to surface.**

INSTALLATION

1. **Machine must be placed on a flat, solid surface.**
2. **Remove all foot bolts locking it to its shipping base before lifting machine.**
3. **Machine must be moved using a dolly or hand truck.**
4. **Test machine length-wise and cross-wise before starting any operations.**
5. **Metal shims must be placed under low corners.**
6. **Once all four corners are supported, tighten lag screw, and retest machine in both directions.**

POWER CONNECTIONS

The spindle shaper has been factory wired before shipment. Before connecting to the power source, verify that power outlet corresponds with the motor voltage. All electrical and motor wiring must be performed by a qualified electrician. This machine must be properly grounded while in use for protection against electrical shock.

FIG.1

ELECTRICAL CONTROLS

Before starting your machine, the spindle shaper is equipped with Push button, magnetic control system, and a reverse switch.(Fig. 1,2)

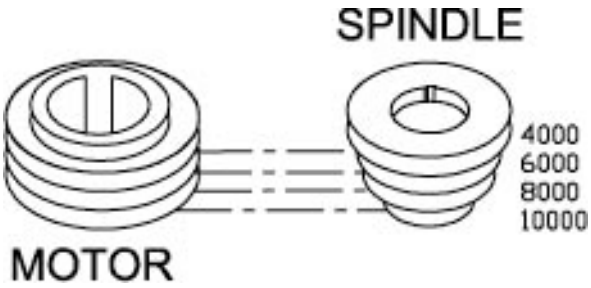
A - Forward Switch

B - Reversing Switch

C - Emergency Stop

When reverse rotation needs to be used; power must be switched OFF" and press the reverse button

FIG.2



SPEED CHANGE AND BELT ADJUSTMENT

The 40-350 Shaper has been designed with FOUR speed pulleys

4000 RPM
6000 RPM
8000 RPM
10000 RPM

Follow these procedures to change speed and adjust the proper belt tension.

1. **Disconnect machine from power source.**
2. **Open guard door.**
3. **Turn lock handle (Fig. 3A) counter clockwise to release belt tension.**
4. **Move the belt to the other groove (Fig. 3B)**
5. **Push handle bar (Fig. 3C) to get proper belt tension**
6. **Tighten the lock handle.(Fig. 3A)**
7. **Close guard door.**

FIG.3

SPINDLE RAISING AND LOWERING: (FIG. 4. 5)

Procedures to adjust the main shaft in the up or down position.

1. **Hand wheel (A) must be loosened.**
2. **Hand wheel (B) must be turned to the desired height.**
3. **Hand wheel (A) must be tightened.**

FIG.4

SPINDLE CHANGE

1-1/4" spindle assemblies are supplied with your shaper. The assemblies are locked in a tapered seat with a draw bar and nut.

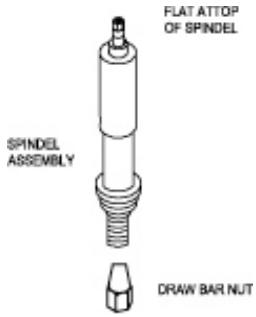
FIG.5

CHANGING

One wrench must be placed on the flats on top of the spindle and the second wrench on the draw bar nut (Fig. 6), this allows the spindle to loosen.

Turn the nut two times; tap gently upwards with a wooden block, this will loosen the spindle from the shaper. Remove nut and lift out the spindle.

FIG.6



CHANGING CUTTERS

All spindle sizes are equipped with a safety lock nut, Left-hand threads are found above the large spindle nut. (Fig.7) To mount or change cutter, first remove the safety lock nut.

Remove the spindle nut by placing one wrench on the spindle nut and another wrench on the flats on top of the spindle. Safety lock nut must be replaced before starting work operations.

FIG.7

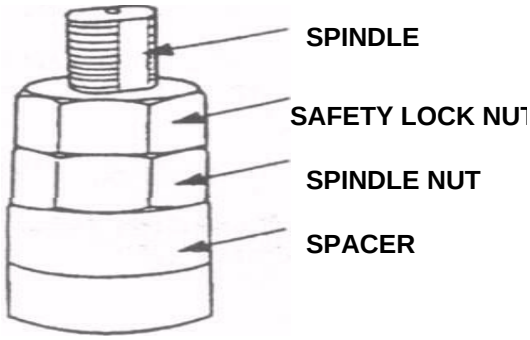


TABLE INSERT

40-350 spindle shaper has been designed with three spindle inserts. The inserts are illustrated in (Fig. 8) Both table inserts have an opening of 7"(178mm), 3"(76.2mm) and 2"(60mm).

The second table insert has a guide shoulder of Ø 3-1/2", this table Insert is used for copying.

ASSEMBLING AND INSTALLING SHAPER FENCE

The fence can be assembled using the diagram (pg.22) as a guide. Fence installation: Once assembled, place the fence on the table. Lock it in place using the two-lock handles (A) and two-lock levers (B). (Fig.9)

FIG.8

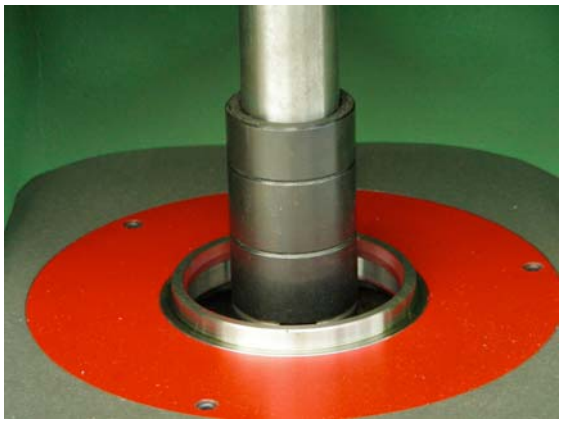
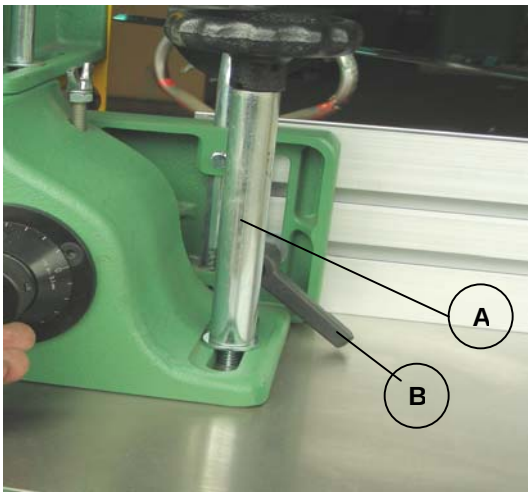


FIG.9

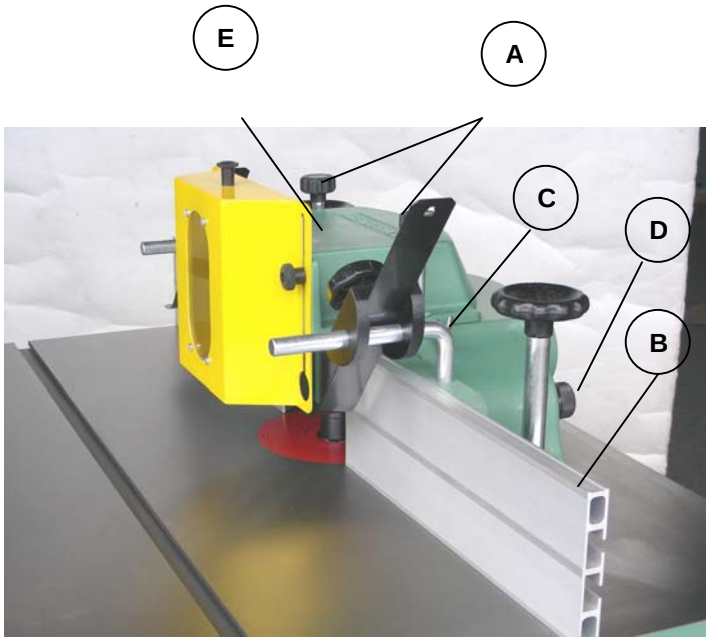


SQUARING THE FENCE

Occasionally the aluminum fence will have to be squared with the mounting surface and adjusted parallel to each other. Follow these procedures for adjustments:

1. **Check that the two mounting knobs A (Fig. 10) are securely tightened. These two knobs hold the guard (E) to the table.**
2. **The wing screw (C) should be tightened to hold the aluminum fence (B) securely.**
3. **Loosen the two wing screw (C) and turn the fence adjustment knobs D, this will allow to move both fences against. The fence should now make contact with the jointed edge and square with the table.**

FIG.10



OPERATING CONTROLS FOR THE FENCE

Depending on the type of work you are shaping, either side of the fence can be moved freely. Fence can be moved by loosening wing screws (A),(Fig.11) Proper setting can be achieved by turning knob (B). The turning knob (B) is with scale for accurate setting. Wing screws (A) must be then tightened to fix in position.

Each fence half should be adjusted as close to cutter head as possible.

To position fence closer to cutter head, loosen handle (A), (Fig. 12). Fence plate (B) must be moved to correct position. Then tighten the handle. (A)

FIG.11

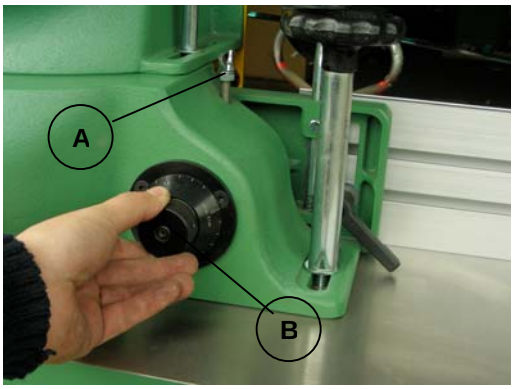
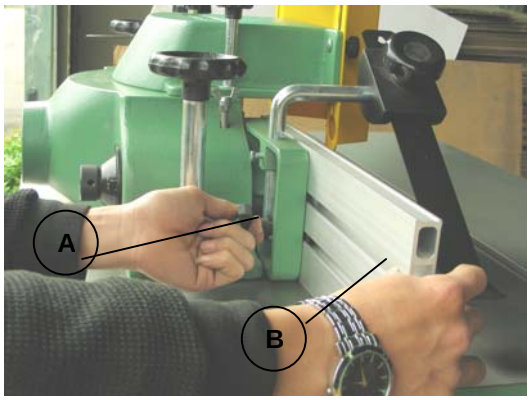


FIG12



WORK SAFETY HOLD DOWN ADJUSTMENT

Loosen knob (A), turn tension plate to desired angle. Then tighten the bolt. (Fig. 13,14).

FIG.13

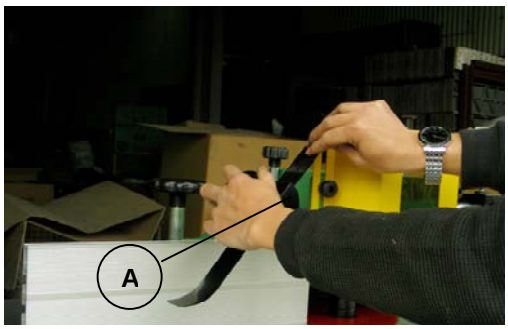
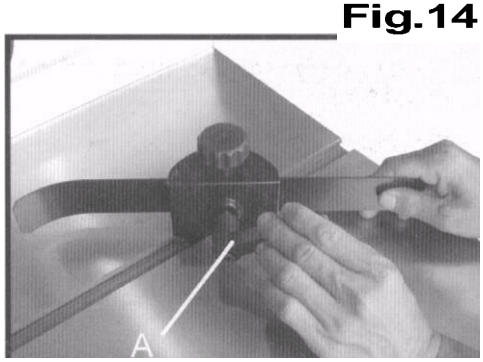


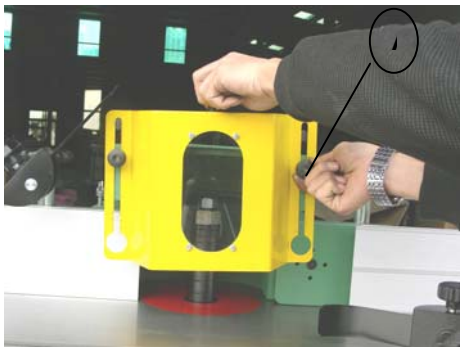
Fig.14



PROTECTION GUARD ADJUSTMENT (FIG. 15)

1. Loosen two knobs (A) to slide protector to desired height.

FIG.15



PERIODICAL MAINTENANCE

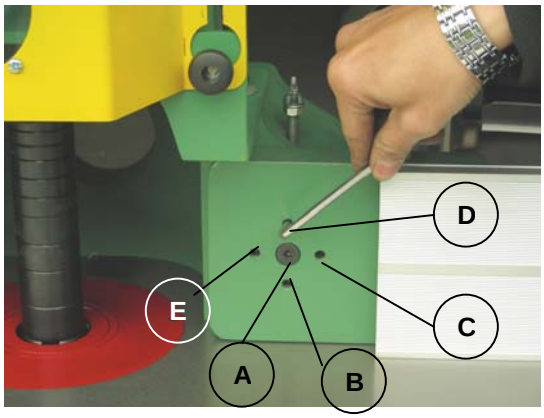
Experienced technician should be contacted when the ball bearings need to be replaced.

- **Spindle must always be cleaned properly and with care, with the use of compressed air jet.**
- **Make sure never to apply oil to the belts and the pulleys, clean with a dry soft rag to clean when greased or dirty.**
- **V-belt must never be under excessive strain, this will cause the machine to overload and can damage the motor bearings, spindle and belt.**

FENCE ADJUSTMENT (FIG.16)

FIG.16

The fence is fixed the position before shipment, following the instruction for when need to do the minor fence adjustment.
1. Loosen the screw (A) and adjust (B) set screw for adjusting the fence to proper position then tighten screw (A). (Pic.1)
2. Loosen the screw (A) and adjust (D) set screw for adjusting the fence to proper position then tighten screw (A). (Pic.2)
1. Loosen the screw (A) and adjust (E) set screw for adjusting the fence to proper position then tighten screw (A). (Pic.3)
2. Loosen the screw (A) and adjust (C) set screw for adjusting the fence to proper position then tighten screw (A). (Pic.4)



Improper position

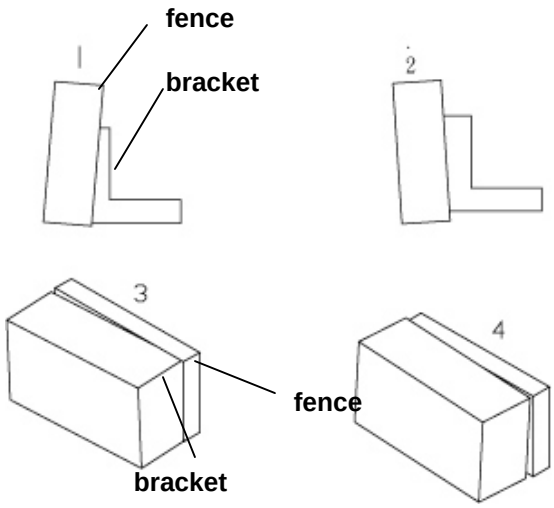
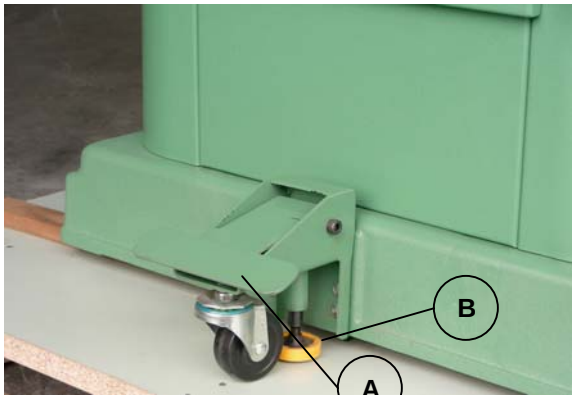


FIG.17

MACHINE LEVELING

Shift the foot pedal (A) upward to allow the leveling screw (B) and four leveling screws located at the four bottoms to rest on the floor.
Shift the foot pedal (A) downward to fixing the machine.
Turn the four leveling screws by using open end wrench for adjusting the machine leveling.



TOOL CHANGING

When changing tools, the process demands lots of attention and extra precautions, keep in mind the following procedures.

1. **Spacers, cutters and collars mounted on the spindle shaft must be in a fixed position. There must be no movement, space or touching between parts.**
2. **Counter bores and holes of collars, cutters or spacers must be in perfect condition with no rust or flaws.**
3. **Before installing the collars, cutters and spacers on the spindle they must be cleaned properly.**
4. **The cutter must always be mounted as low as possible on the spindle.**
5. **Always check before starting the shaper that all parts on the spindle are locked in position.**

BEFORE OPERATING

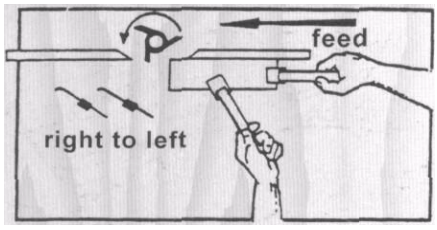
The main drive motor should run for a few seconds, to make sure that it is performing in the proper rotation. Looking down at the spindle, it should be rotating counter-clockwise this is the proper position. Machine should stay on for a short period of time to make sure that all moving parts are properly positioned with no excessive vibration. If any adjustments are required disconnect machine from the power source before properly adjusting.

WARNING !
ALL WORK OPERATORS MUST READ AND UNDERSTAND
THE MANUAL BEFORE STARTING ANY WORK
OPERATIONS ON THE SHAPER !

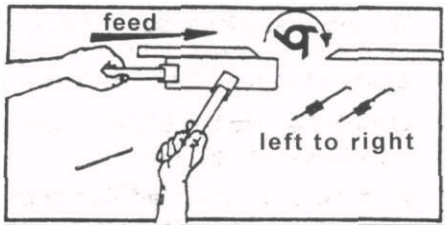
« ATTENTION !
ALL SHAPER OPERATIONS MUST BE USED WITH THE PROPER
GUARDS, AND ANY OTHER SAFETY REQUIREMENTS TO INSURE
SAFETY OF THE OPERATOR!

CUTTER ROTATION **Fig. 18**

COUNTER CLOCKWISE SETUP



CLOCKWISE SETUP **Fig. 19**



Cutter must be positioned as (Fig. 18) work piece must be fed from right to left.
Cutter must be positioned as (Fig. 19) work piece must be fed from left to right.

GRAIN DIRECTION

The work piece should always be shaped in the same direction as the grain (if possible). When cut against the wood grain, woods as redwood, fir and oak will leave a rough, or slightly splintered edge.

CAUTION: **When deep cuts are required, they will need strong power and a pushing force in order to control the cut. Deep cuts can also cause the wood to split or splinter, this may lead to loss of control or injures to the work operator. When a finished edge is not to your satisfaction, cut a few more times with no more than 1/16" deep. Pre-cut stock on band saw 1/16" whenever possible.**
The trailing board edge will splinter when shaping across the grain. The best solution would be to cut the board 1 /4" oversize in width shape the board and simply trim off the excess.

STRAIGHT EDGE SHAPING •

The work piece must always be against the fence to perform straight edge shaping, follow these procedures to set up:

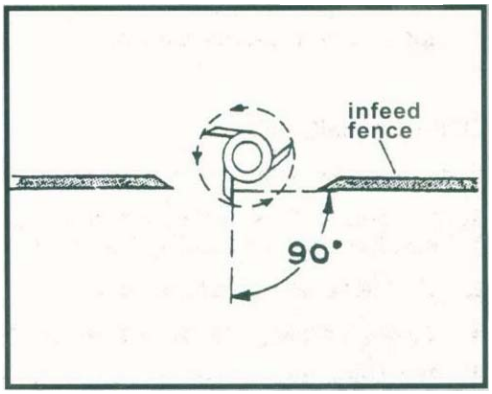
1. Disconnect machine from the power source.

**2. Fence faces must be parallel, properly in line or offset If necessary,
and securely tightened.**

3. Cutter must be rotated and inspected for clearance.

4. Position the leading face of a cutter head blade at 90 degrees to the infeed fence and adjust the spindle to the desired height of the cut. At the same time check the desired depth of cut with the blade in the 90 degrees position.(Fig. 20)

Fig. 20



DEPTH OF CUT

The depth of cut is the distance from the outside circumference edge of the collar which the work rides against to the outside edge of the cutter. The depth of the cut is determined by the position of the fence relative to the cutter head or by the use of shaper collars.

1. Spindle must be locked.

2. Right guard should be installed wherever possible.

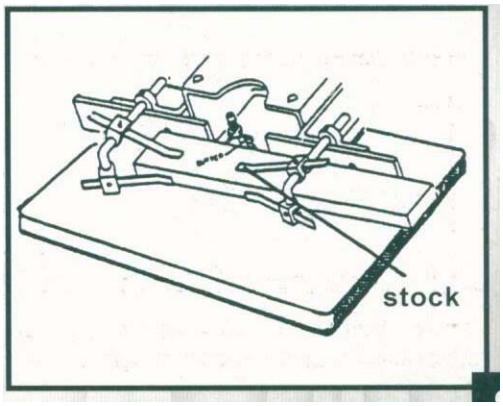
3. Connect to the power source.

4. Make a test cut on a piece of scrap with the same thickness as the work piece.

Note: To determine if the cut, profile and depth are correct you will only need a short cut.

5. Make adjustments if required, or proceed shaping using the work piece.

Fig. 21



EDGE SHAPING: LONG BOARDS

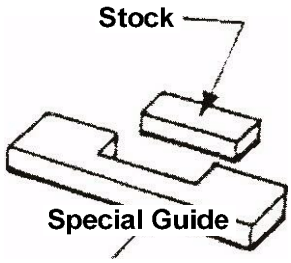
The work piece must be at least 12 inches long when edge shaping long boards.

1. To hold work piece down and against the fence use the hold -downs and horizontal clamps. If the work piece is too wide for the horizontal clamps(Fig. 21), clamp a scrap board to the table to keep the work piece against the fence.

2. Check the rotation of the cutterhead, and be sure to feed the work piece against the ration of cutterhead.

3. To make a smooth cut the work piece should be fed slowly and steadily with firm, even pressure. Note: The rate feed depends on depth of cut and experience of operator.

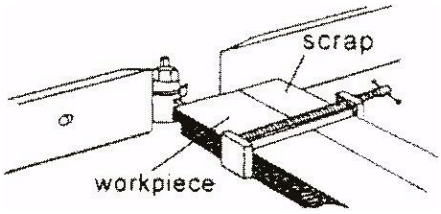
Fig. 22



EDGE SHAPING: SHORT BOARDS

When edge shaping short boards, never attempt to hand guide any stock less than 12 inches long, or narrower than 3 inches without the use of a special guide (Fig. 22)

Fig. 23

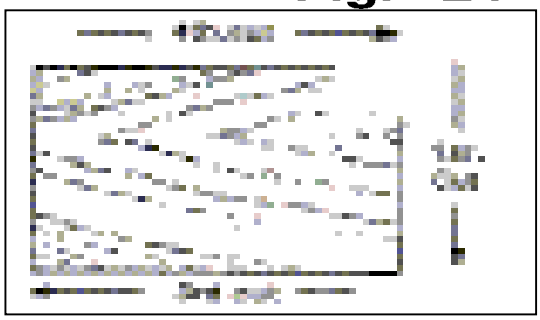


END SHAPING

When end shaping narrow stock at least one half of the work piece end must be in contact with either the outfeed or infeed fence. (Fig. 23)

Warning: never *attempt to shape a narrow piece without a special guide, the work piece may star rocking into the cutter head causing minor or major injury to the work operator.*

Fig. 24



SHAPING SIDES

When shaping across the grain, some woods are more likely to chip out or splinter. It is recommended to shape cross grain sides first. Any chipping that does occur will be removed by the subsequent cut with the grain. (Fig. 24).

Fig. 25

ON-EDGE SHAPING

Using the existing bolts in the fence, attach a taller shop-made fence when the shaper fence does not support firmly support taller stock, (Fig. 25)

Note: To avoid* interference *with mounting screw, make sure the bolt holes are on your shop-made tall fence are countersunk.

SHAPING CONTOURED EDGES WITH RUB COLLARS

To shape contoured edges the fence assembly should be removed. In order to control the work piece and limit the depth of cut an anti-friction collar must be used.(Fig, 26)

The purpose of the collar is to ride against the work piece, at the same time the collar establishes the depth of cut (Fig. 27)The collar can be positioned above or below the cutters. The ring guard should be used whenever possible.

Note: The collar* requires *at least 1/8" of surface edge to ride against, the entire edge cannot be shaped, (fig, 28) However the use of a pattern or template will permits the shaping* of *the entire edge.

When work piece needs to be shaped alt around the perimeter, hold firmly and press the work straight into the cutter until the collar established depth of cut. While holding firmly, keep feeding the work so the point of contact on the edge is always 90 degrees to the collar.

When work piece is not contoured all around, start the cut as shown in (Fig. 29).

Fig. 26

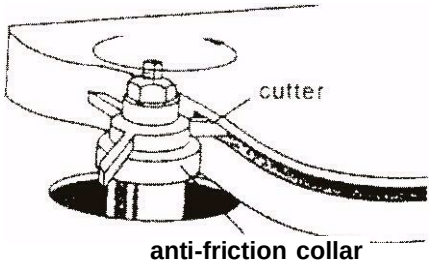
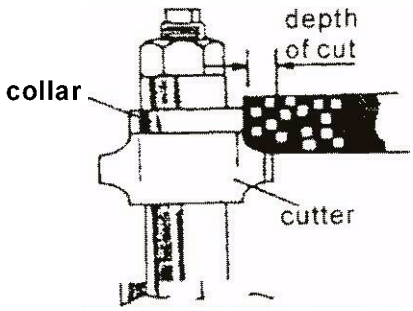


Fig. 27



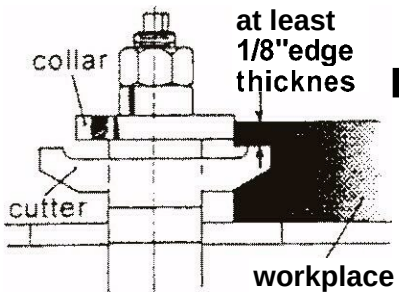
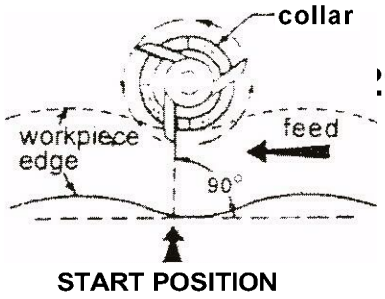


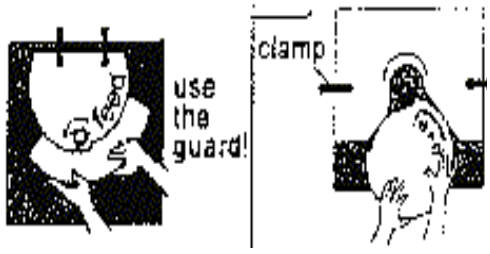
Fig. 28



:9

WARNING i
NEVER ATTEMPT TO SHAPE FREEHAND. **OPERATOR SHOULD** NEVER RACE
HANDS NEAR THE **CUTTERS** OR CUTTERHEAD ! KEEP HANDS AT A DISTANCE OF
12" AWAY FROM ANY CUTTING
DEVISES.

Fig. 30



Small size materials need a special shaping jig. (Fig. 30)

Remove entire fence assembly; place jig carefully at the desired depth of cut, clamp to table securely. It is important with arc and circle shapes that the work piece must be roughly cut to desired size and curve of the finished piece, before being shaped. The curve of the jig must match the work piece exactly. The work piece must be firmly attached to the jig.

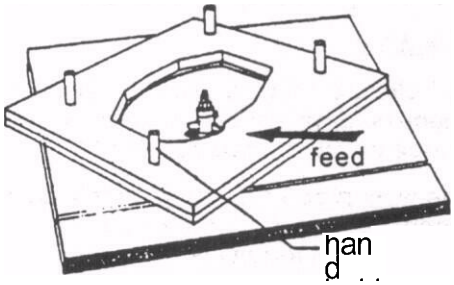
This operation should always be in use of a ring guard or a similar safety device over the cutter head.

ENCLOSED EDGE SHAPING

Inside edge work piece are shaped the same way as outside edges (Fig.31). When the whole edge needs to be shaped, the operator must use a pattern.

The work piece must be placed on table before starting the motor. The operator must shape the whole work piece by feeding into the cutters.

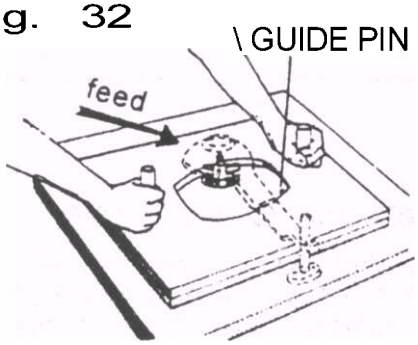
Fig. 31



WARNING !
NEVER ATTEMPT TO PERFORM THIS PROCEDURE WITHOUT A RING GUARD OR A SIMILAR SAFETY DEVICE OVER CUTTERHEAD !

ATTENTION !
OPERATION MUST BE AWARE AT ALL TIMES OF THE FEED DIRECTION ! OPERATION MUST NOT BE LEFT UNATTENDED!

Fig. 32



1. Use a firm grip to ease the edge into the cutters until stopped by the collar (Fig. 32).
2. Keep pushing straight while turning and feeding the work piece, continue until the cut is finished. Turn power switch in the off position and remove the work piece only once the cutters have come to a complete stop.

WARNING !

NEVER PERFORM ENCLOSED EDGE SHAPING WHEN THERE IS LESS THAN 12" OF WOOD MATERIAL ALL AROUND THEOPENING ! THE ONLY TIME THIS CAN BE DONE IS IF THE WORK PIECE IS ATTACHED TO A LARGER WOOD BASE!

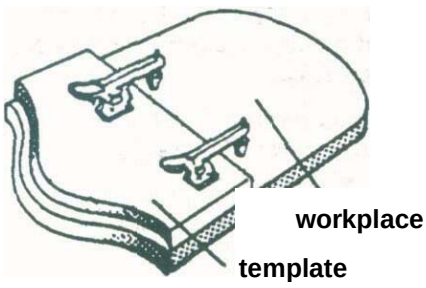
ATTENTION !

NEVER PERFORM ENCLOSED HAPING WHEN WORK PIECE OPENING IS MALLER THAN TWICE THE DIAMETER IN ANY

TEMPLATES

A template serves as guide for the cutter. The template must be made of scrap material thick enough to provide a solid bearing edge against a collar, recommended size 3/4". (Fig. 33)

Fig. 33



MULTI-PIECED TEMPLATES

When the work piece requires all-around shaping, the template, may be built from various sections fixed together. (Fig. 34)

SECURING A TEMPLATE TO THE WORK PIECE

Various methods are used to secure template to the work piece. The operator should select the best method to secure the template to the work piece based on the size, shape, and constriction of the template and work piece.

EXAMPLE: •

"C" clamps can be used to securely hold a template when the work piece is large enough to surpass the front of table, while still leaving space for the desired cut. (Fig, 35)

The work piece may be placed against the template using dowels as anchor points and wooden blocks to help the operator in guiding the work piece through the cut. (Fig. 36)

Fig. 34

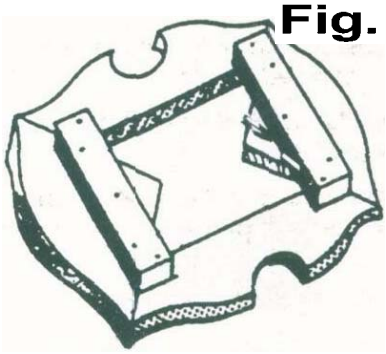


Fig. 35

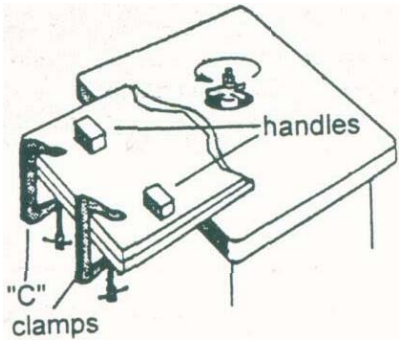


Fig. 36

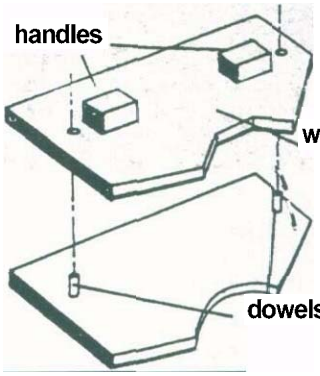
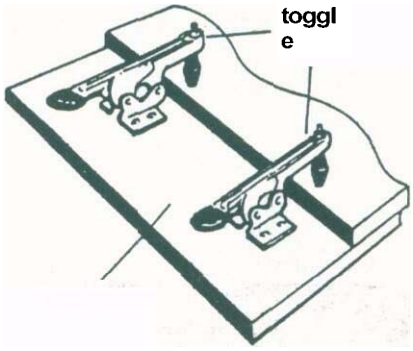


Fig. 37

HORIZONTAL TOGGLE CLAMP

Horizontal toggle clamp are useful when the regular "C" clamps cannot allow the freedom of movement required in shaping (Fig. 37). No additional hand pressure is necessary for the operator to control the work piece. Anchor points like dowels are necessary with this setup.



PROTECTION

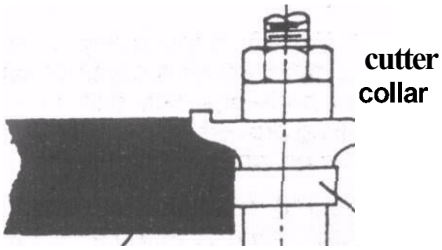
The operators should take precautions to protect themselves, and all others around the work area and the machine itself for improper use.

Never leave machine unattended while it is running, the operator needs to be very focused and attentive, and not looking elsewhere or carrying on conversation while using the machine. Carelessness or inattention will result in serious injuries and damages.

SPECIAL CUTS

Fig. 38

The illustrations in this section show the profile or section views made by the cutters. The most efficient cutters are carbide tipped to ensure cleaner cuts and longer cutter life. Small cutters may be solid carbide, some use inserts. Since there is such various choices, the operator is limited only by his experience and imagination,

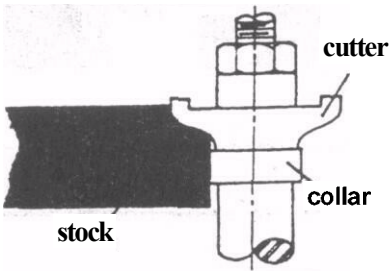


STACKED CUTTERS

A variety of timesaving and interesting cuts can be made in a single setup by stacking the cutters (Fig. 39). When stacking cutters extra care should be taken. Check that cutters have no flaw nicks, or just. Cutters must cleaned and perfectly balanced before placing in the stacked poisiton.

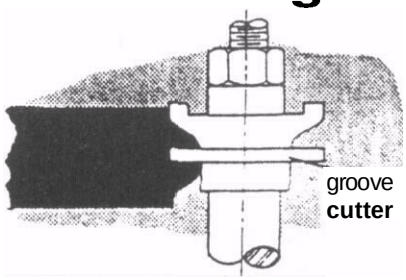
SASH AND DOOR SHAPING

Fig. 39



Door shaping requires two operations. (Fig. 39) demonstrates sash cut for the first operation.

Fig. 40



Figures 40 demonstrates when the stock is flipped over and the sash cutter with a 1/4" groove cutter to complete the cut.

Fig. 41

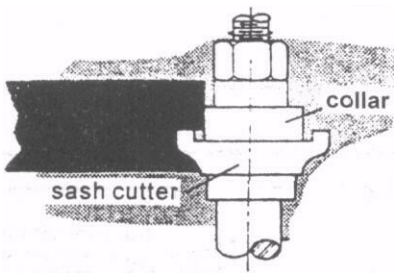


Figure 41 demonstrates the first shaping cut with the sash cutter for the matching door stile sash.

Fig. 42

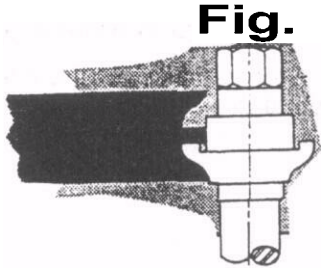


Figure 42 demonstrates the same cut with the stock flipped over.

Fig. 43

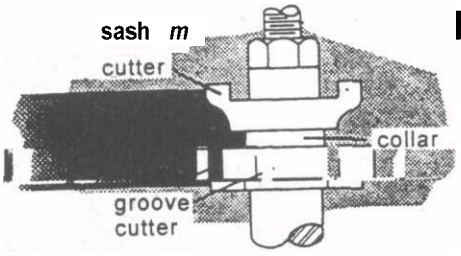


Figure 43 demonstrates the first shaping out, for a window sash stile using a sash cutter, collar, and a 1/2" groove cutter

Fig. 44

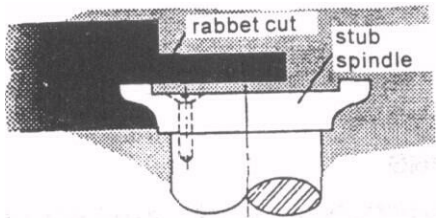


Figure 44 demonstrates both cuts needed for a window sash rail end. The first operation at top is a rabbet cut made with a groove cutter. The second operation is performed with a stub spindle and button head screw.

BUTT JOINTS

Fig. 45

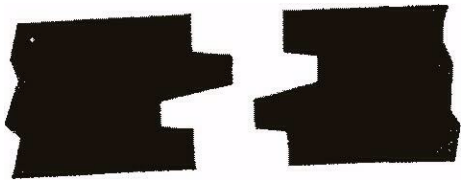


Fig. 46

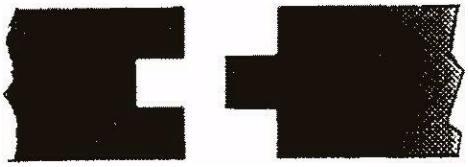


Fig. 47

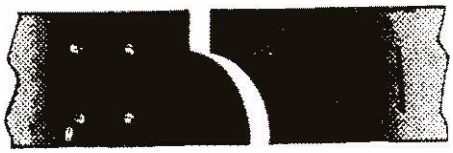


Fig. 48

All butt type joints require both work pieces to be perfectly squared and straight-edged.

GLUE BUTT JOINT: To perform a glue butt joint, both fences must be kept inline and adjusted for a depth of cut (Fig. 45). both cuts on the work pieces are part-edge cuts that do not reduce the width of material during cutting procedures. When shaping the work pieces, one must be ted top-side up, and the other is fed bottom-side up.

TONGUED JOINT; similar to the glue joint, both fences are kept in-line for the tongued joint and must be adjusted for 1/4" depth of cut with no reduction in stock width. With this joints, both work pieces are fed with the same side up. (Fig. 46)

DROP LEAF JOINT: A drop leaf joint work piece is shaped using a Drop Leaf Bead cutter, the table work piece is shaped with d Drop Leaf Cove cutter. This joint type, the whole edge of both work pieces are shaped the same side up and allows 1/16" reduction in width. Adjust the infeed fence to reduce the work piece width by 1/16" and adjust the outfeed-fence to compensate for stock removed. (Fig. 47)

TENONING

Figure 48 demonstrates the tenoning fixture which shows a miter gauge equipped with a hold-down for shaping the ends of narrow work piece.

A Miter gauge can also be adapted to cut square and centered tenons at the ends of leg for table, chairs etc. Secure leg to the jig and position for cut (Fig. 49).

First cuts must be made with the same jig setting and spindle height. When the first several cuts have been made, reposition the leg on the jig for each succeeding cut.

Note: If legs are tapered. (Fig.50) use a wedge to set the side facing the cutter to 90 degrees vertical.

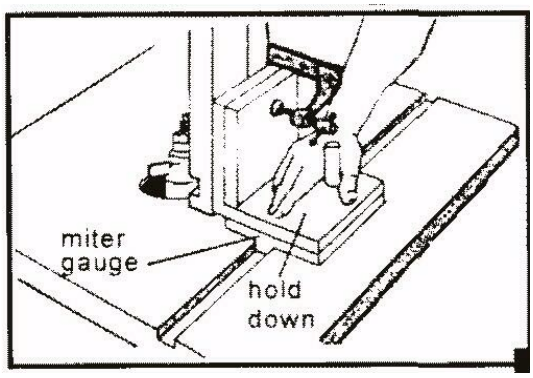


Fig. 49

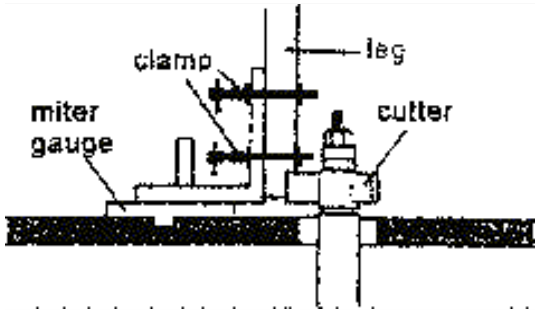
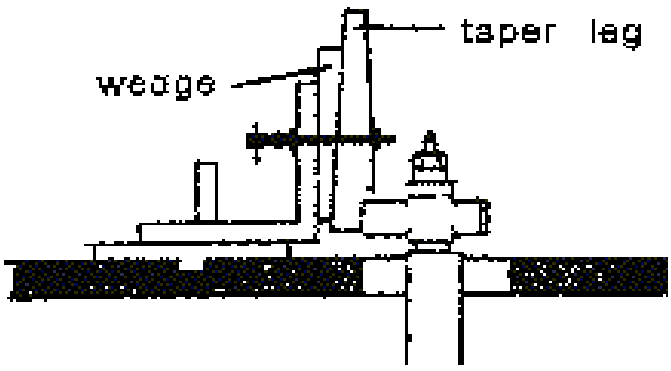
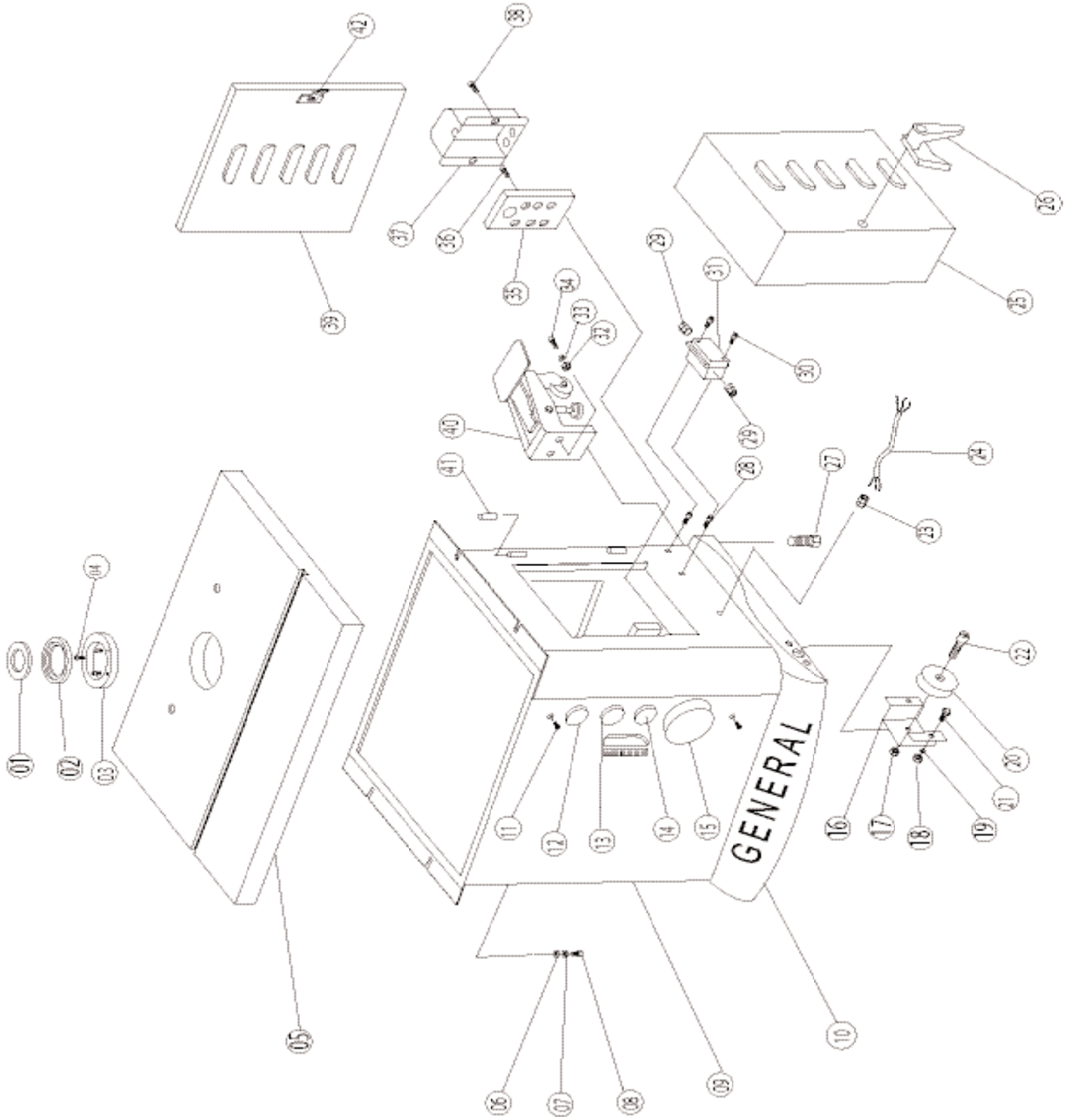


Fig. 50



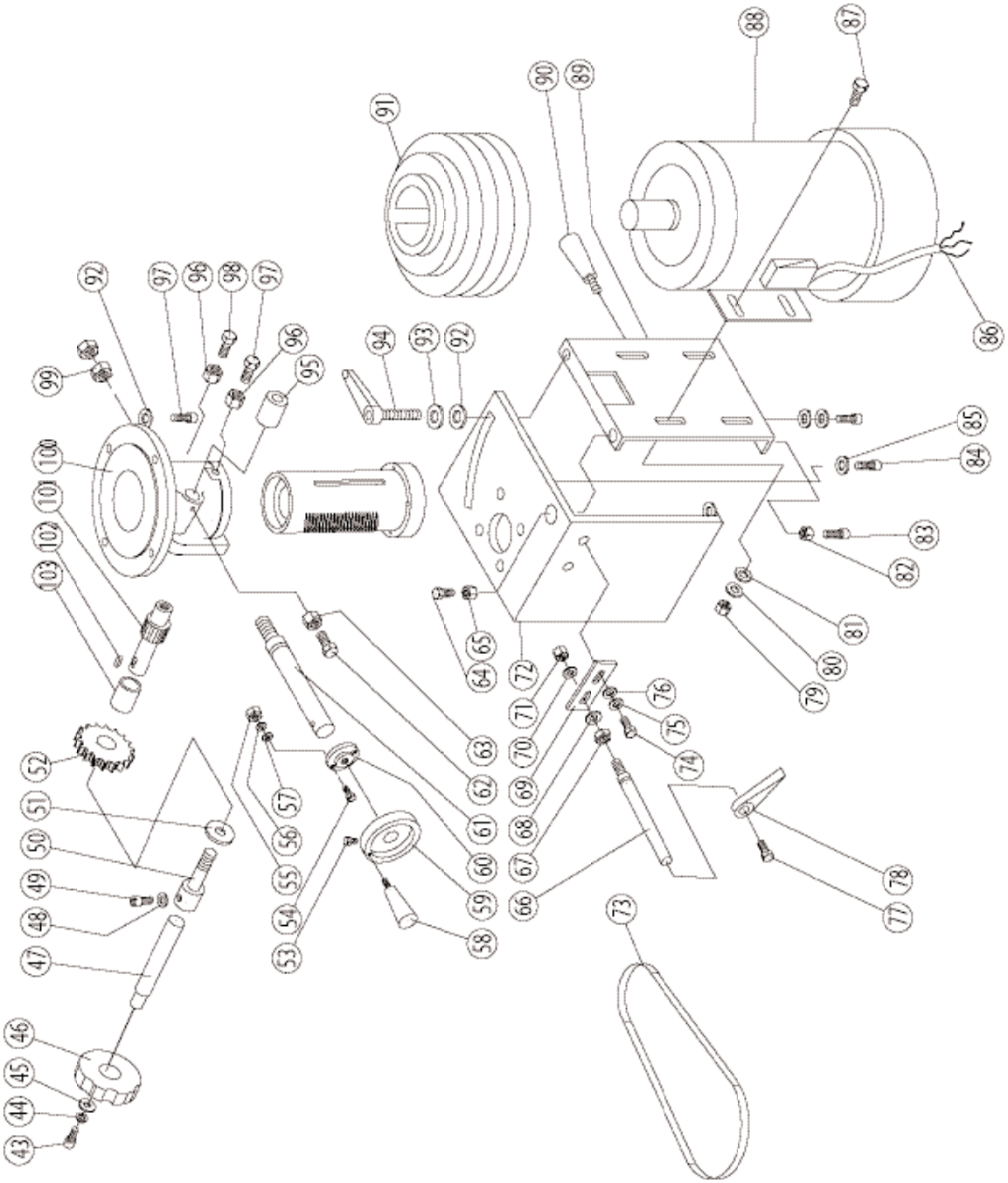
BASE



PARTS LIST
40-350

PART N0.	DESCRIPTION	SPECIFICATION	QTY
40350-1	TABLE INSERT		1
40350-2	TABLE INSERT		1
40350-3	TABLE INSERT		1
40350-4	SET SCREW CAP	PT 5/16" X 5/8"	3
40350-5	TABLE	30" X 40" X 85mm	1
40350-6	WASHER	3/8"	4
40350-7	SPRING WASHER	3/8"	4
40350-8	SCREW	3/8" X 1	4
40350-9	STAND ASSEMBLY		1
40350-10	BASE		1
40350-11	SCREW	3/16" X 1/2"	2
40350-12	POWER LIGHT		1
40350-13	FORWARD SWITCH		1
40350-14	REVERSE SWITCH		1
40350-15	EMERGENCY STOP		1
40350-16	WHEEL BRACKET		1
40350-17	NUT		2
40350-18	NUT	5/16"	4
40350-19	SPRING WASHER	5/16"	4
40350-20	WHEEL		2
40350-21	SCREW	5/6" X 1"	4
40350-22	SCREW CAP	5/16" X 2-1/2"	2
40350-23	WIRE PROTECTOR		1
40350-24	ELECTRIC CORD		1
40350-25	SIDE DOOR		1
40350-26	LOCK		1
40350-27	SCREW	3/8" X 1-1/4"	4
40350-28	SCREW		4
40350-29	WIRE PROTECTOR		2
40350-30	SCREW		4
40350-31	CONNECTOR BOX		1
40350-32	NUT 1/4"		4
40350-33	SPRING WASHER	1/2	4
40350-34	SCREW	1/4" X 1"	4
40350-35	BRACKET		1
40350-36	SCREW	3/16" X 1/2"	2
40350-37	GUARD		1
40350-38	SCREW	3/16" X 1/2"L	2
40350-39	BACK DOOR		1
40350-40	FOOT PEDAL WHEELS		1
40350-41	PIN		2
40350-42	DOOR LOCK		1

QUILL



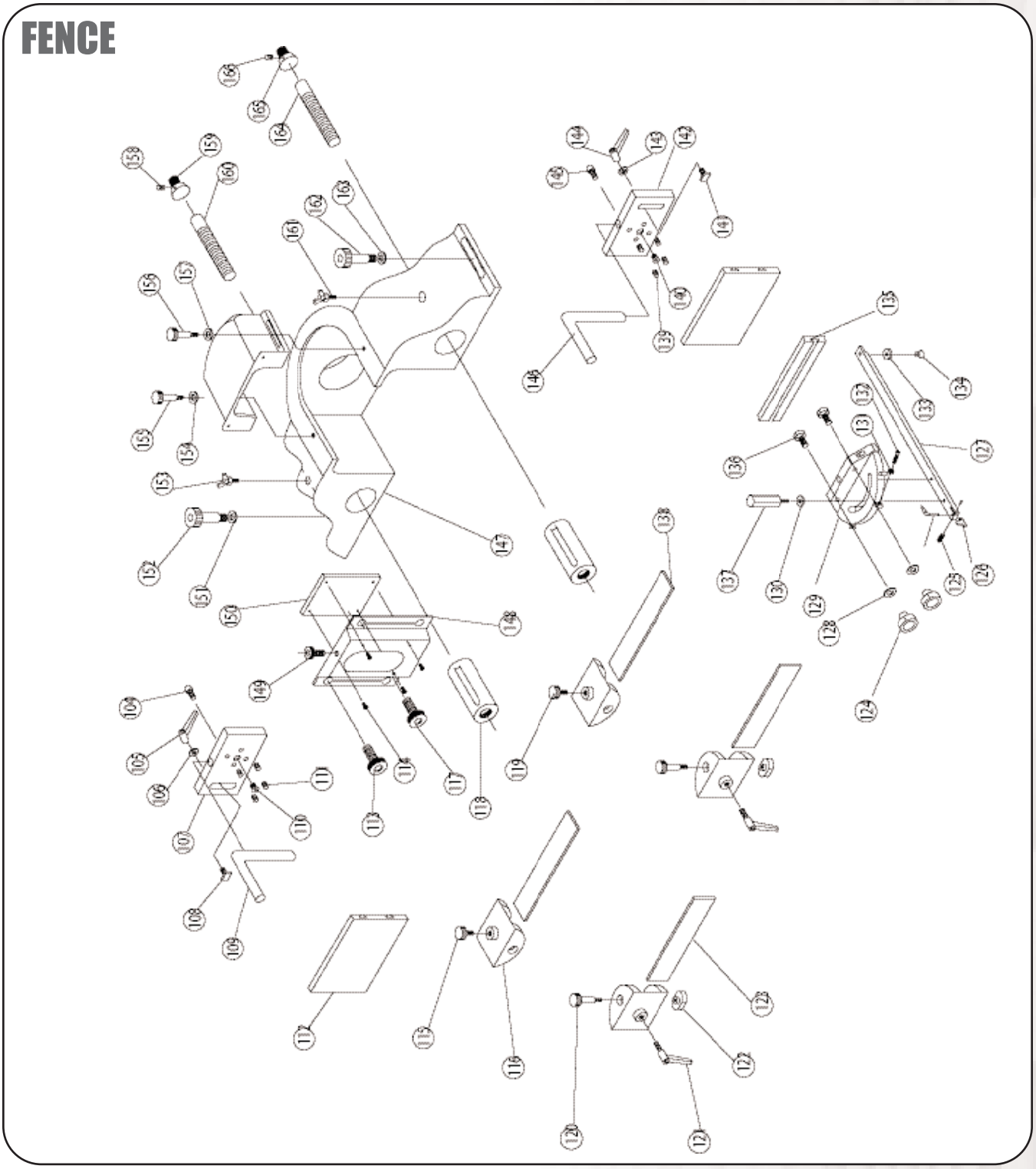
PARTS LIST
40-350

PART NO.	DESCRIPTION	SPECIFICATION	QTY
40350-43	SCREW	1/4" X 1"	1
40350-44	SPRING WASHER 1/4"		1
40350-45	WASHER 1/4"		1
40350-46	HAND WHEEL		1
40350-47	LOCK SHAFT		1
40350-48	NUT	5/16"	1
40350-49	SCREW	5/16" X 3/4"	1
40350-50	LOCK SCREW GEAR		1

PARTS LIST
40-350

PART NO.	DESCRIPTION	SPECIFICATION	QTY
40350-51	WASHER		1
40350-52	GEAR		1
40350-53	SCREW	5/16" X 1"	1
40350-54	SCREW	5/16" X 1"	2
40350-55	NUT	5/16"	2
40350-56	SPRING WASHER	5/16"	2
40350-57	WASHER	5/16"	2
40350-58	KNOB		1
40350-59	HAND WHEEL		1
40350-60	BASE GEAR FOR SHAFT		1
40350-61	GEAR SHAFT		1
40350-62	SCREW	5/16" X 3/4"	1
40350-63	NUT	5/16"	1
40350-64	SCREW	1/2" X 1"	1
40350-65	NUT	1/2"	1
40350-66	SHAFT		1
40350-67	NUT	3/8"	1
40350-68	WASHER		1
40350-69	PLATE		1
40350-70	WASHER		1
40350-71	NUT	3/8"	1
40350-72	MOTOR BASE		
40350-73	BELT	A-25	1
40350-74	SCREW	1/4" X 1/2"	2
40350-75	SPRING WASHER	1/4"	2
40350-76	WASHER	1/4"	2
40350-77	SCREW	5mm X 0 X 8 mm X 8mm	1
40350-78	POINTER		1
40350-79	NUT	5/16"	4
40350-80	SPRING WASHER	5/16"	4
40350-81	WASHER	5/16"	4
40350-82	NUT	1/2"	1
40350-83	SCREW	1/2" X 1-1/4"	1
40350-84	SCREW	5/16" X 3/4"	4
40350-85	SPRING WASHER	5/16"	4
40350-86	ELECTRIC CORD FOR MOTOR BRAKE		1
40350-87	SCREW	5/16" X 5/8"	4
40350-88	MOTOR		1
40350-89	MOTOR BASE		1
40350-90	KNOB		1
40350-91	MOTOR PULLEY		1
40350-92	WASHER	3/8"	2
40350-93	SPRING WASHER	3/8"	5
40350-94	HANDLE LOCK		1
40350-95	COLLAR		1
40350-96	NUT	3/8"	2
40350-97	SCREW	3/8" X 1"	2
40350-98	SCREW	3/8" 1-1/4	1
40350-99	NUT	1/2"	2
40350-100	SPINDLE BASE		1
40350-101	GEAR SHAFT		1
40350-102	KEY	5mm X 5mm X 15mm	1
40350-103	COLLAR		1

FENCE



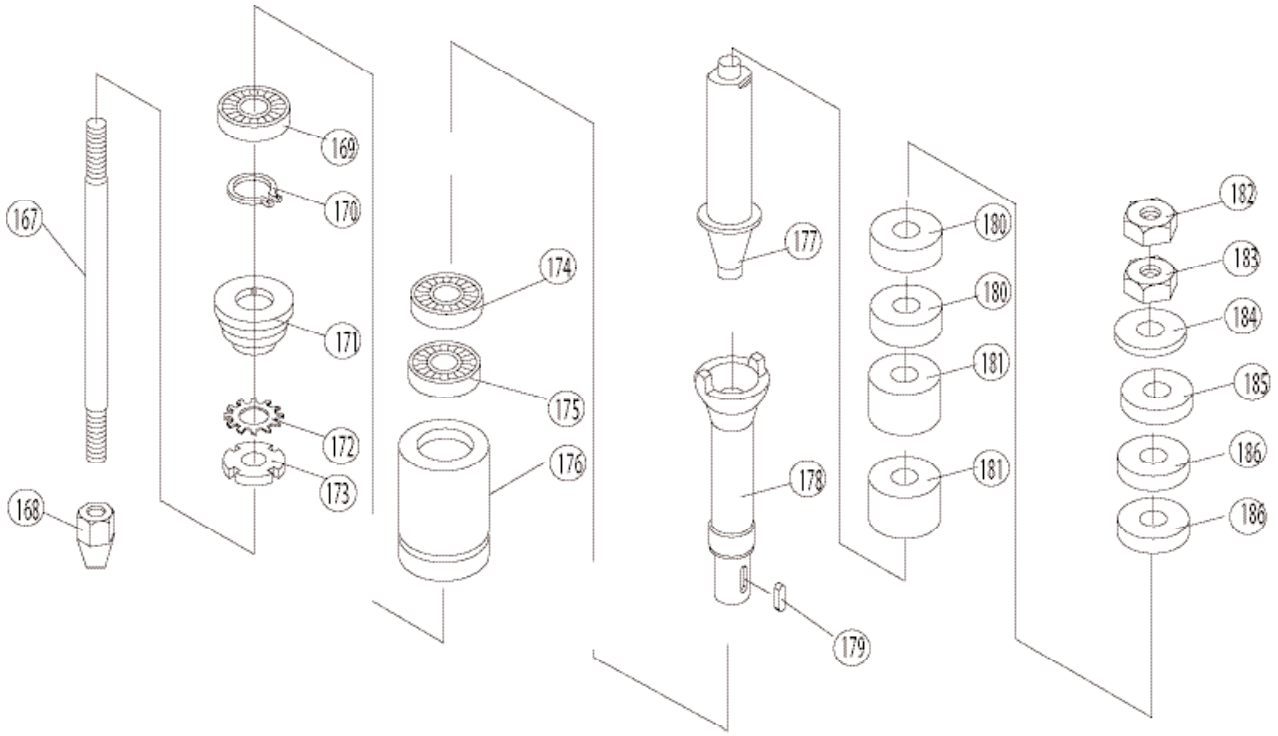
PARTS LIST
40-350

PART NO.	DESCRIPTION	QTY
40350-104	SCREW	1
40350-105	HANDLE LOCK	1
40350-106	WASHER	1
40350-107	BRACKET ASSY FENCE	1
40350-108	SCREW(T)	1
40350-109	BAR(L)	1
40350-110	COUNTERSUNK SETSCREW	1

PARTS LIST
40-350

PART NO.	DESCRIPTION	SPECIFICATION	QTY
40350-111	SET		4
40350-112	FENCE		2
40350-113	KNOB		1
40350-114	SCREW		4
40350-115	KNOB		1
40350-116	RETAINER		2
40350-117	KNOB		1
40350-118	SHAFT		2
40350-119	KNOB		1
40350-120	LOCK KNOB		2
40350-121	HANDLE LOCK		2
40350-122	T-HEX NUT	3/8"	2
40350-123	SPRING TENSION		2
40350-124	KNOB		2
40350-125	SCREW		1
40350-126	LOCATING PLATE		1
40350-127	GUIDE BAR		1
40350-128	WASHER		2
40350-129	MITER GAUGE BODY		1
40350-130	WASHER		1
40350-131	NUT		3
40350-132	SCREW	3/16"X3/4"	3
40350-133	ROLLER GUIDE		1
40350-134	FLAT HEAD SCREW	3/16"X1/4"	1
40350-135	FENCE		1
40350-136	SCREW	5/16"X1-3/4"	2
40350-137	HANDLE		1
40350-138	SPRING TENSION		2
40350-139	SET SCREW		4
40350-140	COUNTERSUNK SETSCREW		1
40350-141	SCREW(T)		1
40350-142	BRACKET ASSY FENCE		1
40350-143	WASHER		1
40350-144	HANDLE LOCK		1
40350-145	SCREW		1
40350-146	BAR		1
40350-147	GUARD		1
40350-148	PROTECTING GUARD		1
40350-149	KNOB		1
40350-150	SEE-THROUGH GUARD		1
40350-151	WASHER		1
40350-152	KNOB		1
40350-153	WING SCREW		1
40350-154	WASHER		1
40350-155	KNOB SCREW		1
40350-156	KNOB SCREW		1
40350-157	WASHER		1
40350-158	SET SCREW		1
40350-159	KNOB		1
40350-160	SCREW ROD		1
40350-161	WING SCREW		1
40350-162	KNOB		1
40350-163	WASHER		1
40350-164	SCREW ROD		1
40350-165	KNOB		1
40350-166	SET SCREW		1

SPINDLE



PARTS LIST
40-350

SPINDLE

PART NO.	DESCRIPTION	SPECIFICATION	QTY
40350-167	LOCK BOLT		1
40350-168	LOCK NUT		1
40350-169	BEARING		1
40350-170	SNAP RING	S-30	1
40350-171	SPINDLE PULLEY		1
40350-172	LOCK WASHER		1
40350-173	LOCK NUT		1
40350-174	BEARING		1
40350-175	BEARING		1
40350-176	QUILL		1
40350-177	SPINDLE	1-1/4"	1
40350-178	SHAFT		1
40350-179	KEY		1
40350-180	COLLAR	1-1/4" X 3/4"	2
40350-181	COLLAR	1-1/4" X 1"	2
40350-182	HEX NUT	3/4" RXH	1
40350-183	HEX NUT	1" RXH	1
40350-184	COLLAR	1-1/4" X 1/4"	1
40350-185	COLLAR	1-1/4" X 3/8"	1
40350-186	COLLAR	1-1/4" X 1/2"	2